

An aerial photograph showing a river winding through a lush green landscape. A person is visible on the left bank, looking towards the river. The text "Tennessee Department of Health Environmental Epidemiology Program" is overlaid in the center of the image.

# **Tennessee Department of Health Environmental Epidemiology Program**

# **The Health Department's Role**

**The Tennessee Department of Health is partnering with federal, state, and local government agencies to ensure that the health of residents in Roane County remains a priority as cleanup of the Tennessee Valley Authority coal ash site continues.**






# The Health Department's Role

---

The Tennessee Department of Health encourages people with specific questions about their health to get care from their regular doctor. This professional can provide the care that is best for each patient's specific needs.

# What Has the Tennessee Department of Health Done?

---

-  Responded as part of the Emergency Response
-  Educated health care professionals
-  Tested samples at our laboratories
-  Performed a Health Needs Assessment
-  Partnered with TDEC to ensure public safety

# Health Needs Assessment

---

 See the fact sheet for a summary of the results

 Interviewed 368 people from 170 households

# Community Health Survey Findings



## Before the release

- 12% had asthma
- 6% had chronic obstructive pulmonary disease
- 5% had a history of heart attack



## After the release

- 62% reported no change in health status
- 33% reported worsening of 1 or more symptoms
- 5% “didn’t know”



## Most common symptoms



- 27% worsening of cough
- 25% headaches
- 14% wheezing



52% reported symptoms of stress and anxiety

# Specific Role of the Environmental Epidemiology Program

---

-  Assist other governmental agencies
-  Review environmental data for public health implications
-  Perform toxicological and health risk assessment
-  Prepare written reports that explain the data and the reasoning for the conclusions
-  Perform community involvement and education activities

# How Does the Environmental Epidemiology Program Do Its Job?

---


 The Department of Health, through its Environmental Epidemiology Program, has:

- Reviewed each data point from each agency
- Examined the data grouped by agency and by media:
  - Ash
  - Soil
  - Drinking water
  - Wells
  - Springs
  - Wells



# Health Message – Water

---




 **Kingston and Rockwood public drinking water supplies meet state and federal drinking water standards.**

- The raw water going into the Kingston and Rockwood water treatment plants is not impacted by coal ash
- The finished water coming from the Kingston and Rockwood water treatment plants to area homes is safe

 **Private wells and springs tested within 4 miles of the site are not impacted by the coal ash release**

# Health Message - Dermal

---

-  Skin irritation could occur from ash contacting your skin.
-  The metals in the ash will not get into your body from skin contact with the ash.
-  If ash gets on your skin, your child's skin, or on your pet, wash the same way as you would clean up after mud exposure.

# Health Message - Ingestion

---

 **Ash could be eaten accidentally. This is called incidental ingestion.**

- **If you get ash on your hands and do not wash them before eating or smoking, you could ingest some ash.**
- **If your children play in the ash, they could ingest some ash from hand-to-mouth behaviors.**
- **If your pets play in the ash and then you or your family plays with the pet, you could ingest some ash.**

# Health Message - Ingestion

---




 Arsenic is the only metal of concern for ingestion.

 The arsenic in the coal ash is in a form that will not be absorbed through the GI tract.

 Ingestion of ash should not pose a hazard.


# Health Message - Inhalation

---

-  Inhalation of the coal ash dust would have the same health affects as breathing other types of dust.
  - Being exposed to particulate matter is harder on people with existing lung problems.
-  Dust in air is regulated by a National Ambient Air Quality Standard called Particulate Matter or PM for short
-  PM is regulated by size of the particles:
  - PM10 is for fine particulates between 2.5 and 10 microns
  - PM2.5 is for ultra-fine particulates smaller than 2.5 microns

# Health Message - Inhalation




---

 The particulate matter and metals measured in air near the site are below national and state standards or are less than any levels of concern.

 TDEC has required TVA to take action to prevent dust getting into the air and is making sure those measures work.

# Health Message - Inhalation


---

-  TDEC is working on a system to give residents real-time information on the air quality conditions from their monitoring site on Lakeshore Drive.
-  The system will work like the ozone and PM2.5 mapping now used for public information.
-  The system will be linked to the TDEC Kingston webpage

# Health Message - Physical

---




 **Walking on the wet ash poses the greatest immediate safety hazard.**

 **Because the ash is in water and on land, you cannot see where the land ends and the water begins. The wet ash could collapse under the weight of a person.**



# Conclusions as if March 5, 2009

---

-  **Public and private water supplies are not impacted by the ash**
-  **Occasional exposure to the coal ash should not be a health hazard**
-  **The amount of particulate matter and metals in air meet all standards and are below levels of health concern.**

# Future

---





 **TDEC and TDH will continue working to make sure that no one has a health risk from the coal ash**

 **TDH will continue to examine all the data**

 **TDEC will continue to examine all the data**

# Recommendations

---

-  **Stay away from the ash**
-  **If you, your child, or your pet contacts the ash, wash as you would for mud**
-  **If you see some dust, try to stay away from it or go inside**
-  **Occasional exposures should not pose a health hazard**